## **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

## ENTERED



(pg-6)

**IFWP** 

RAW SEQUENCE LISTING DATE: 07/31/2006
PATENT APPLICATION: US/10/563,726 TIME: 14:24:12

Input Set : A:\PTO.KD.txt

Output Set: N:\CRF4\07312006\J563726.raw

3 <110> APPLICANT: THE GENERAL HOSPITAL CORPORATION
5 <120> TITLE OF INVENTION: FUGETACTIC PROTEINS, COMPOSITIONS AND METHODS OF
USE

7 <130> FILE REFERENCE: (51588)62063.WO

C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/563,726

C--> 10 <141> CURRENT FILING DATE: 2006-01-06

- 12 <150> PRIOR APPLICATION NUMBER: 60/485,550
- 13 <151> PRIOR FILING DATE: 2003-07-07
- 15 <160> NUMBER OF SEQ ID NOS: 121
- 17 <170> SOFTWARE: PatentIn Ver. 3.3
- 19 <210> SEQ ID NO: 1
- 20 <211> LENGTH: 724
- 21 <212> TYPE: PRT
- 22 <213> ORGANISM: Mus sp.
- 24 <400> SEQUENCE: 1
- 25 Met Pro Glu Glu Val His His Gly Glu Glu Glu Val Glu Thr Phe Ala
- 26 1 5 10 15
- 28 Phe Gln Ala Glu Ile Ala Gln Leu Met Ser Leu Ile Ile Asn Thr Phe 29 25 30
- 31 Tyr Ser Asn Lys Glu Ile Phe Leu Arg Glu Leu Ile Ser Asn Ala Ser
- 34 Asp Ala Leu Asp Lys Ile Arg Tyr Glu Ser Leu Thr Asp Pro Ser Lys
- 35 50 55 60 37 Leu Asp Ser Gly Lys Glu Leu Lys Ile Asp Ile Ile Pro Asn Pro Gln
- 38 65 70 75 80
- 40 Glu Arg Thr Leu Thr Leu Val Asp Thr Gly Ile Gly Met Thr Lys Ala
  41 85 90 95
- 43 Asp Leu Ile Asn Asn Leu Gly Thr Ile Ala Lys Ser Gly Thr Lys Ala
  44 100 105 110
- 46 Phe Met Glu Ala Leu Gln Ala Gly Ala Asp Ile Ser Met Ile Gly Gln
- 47 115 120 125 49 Phe Gly Val Gly Phe Tyr Ser Ala Tyr Leu Val Ala Glu Lys Val Val
- 49 Phe Gly Val Gly Phe Tyr Ser Ala Tyr Leu Val Ala Glu Lys Val Val 50 130 135 140
- 52 Val Ile Thr Lys His Asn Asp Asp Glu Gln Tyr Ala Trp Glu Ser Ser
- 53 145 150 155 160 55 Ala Gly Gly Ser Phe Thr Val Arg Ala Asp His Gly Glu Pro Ile Gly
- 56 165 170 175 58 Arg Gly Thr Lys Val Ile Leu His Leu Lys Glu Asp Gln Thr Glu Tyr
- 59 180 185 190
- 61 Leu Glu Glu Arg Arg Val Lys Glu Val Val Lys Lys His Ser Gln Phe 62 195 200 205
- 64 Ile Gly Tyr Pro Ile Thr Leu Tyr Leu Glu Lys Glu Arg Glu Lys Glu 65 210 215 220
- 67 Ile Ser Asp Asp Glu Ala Glu Glu Glu Lys Gly Glu Lys Glu Glu Glu

RAW SEQUENCE LISTING DATE: 07/31/2006 PATENT APPLICATION: US/10/563,726 TIME: 14:24:12

Input Set : A:\PTO.KD.txt

Output Set: N:\CRF4\07312006\J563726.raw

68 225					230					235					240
70 Asp	Lys A	Asp .	Asp	Glu		Lys	Pro	Lys	Ile		qaA	Val	Glv	Ser	
71	-	_		245		•		•	250		•		- 2	255	
73 Glu	Glu <i>l</i>	Asp .	Asp	Ser	Gly	Lys	Asp	Lys	Lys	Lys	Lys	Thr	Lys	Lys	Ile
74			260		-	-	-	265	-	-	•		270	•	
76 Lys	Glu 1	Lys	Tyr	Ile	Asp	Gln	Glu	Glu	Leu	Asn	Lys	Thr	Lys	Pro	Ile
77		275	_		-		280				-	285	•		
79 Trp	Thr A	Arg .	Asn	Pro	Asp	Asp	Ile	Thr	Gln	Glu	Glu	Tyr	Gly	Glu	Phe
	290	_			_	295					300	-	•		
82 Tyr	Lys S	Ser	Leu	Thr	Asn	Asp	Trp	Glu	Asp	His	Leu	Ala	Val	Lys	His
83 305					310	_	_		_	315					320
85 Phe	Ser V	Val	Glu	Gly	Gln	Leu	Glu	Phe	Arg	Ala	Leu	Leu	Phe	Ile	Pro
86				325					330					335	
88 Arg .	Arg A	Ala	Pro	Phe	Asp	Leu	Phe	Glu	Asn	Lys	Lys	Lys	Lys	Asn	Asn
89			340					345					350		
91 Ile	Lys I	Leu	Tyr	Val	Arg	Arg	Val	Phe	Ile	Met	Asp	Ser	Cys	Asp	Glu
92	3	355					360					365			
94 Leu	Ile I	Pro	Glu	Tyr	Leu	Asn	Phe	Iļe	Arg	Gly	Val	Val	Asp	Ser	Glu
	370					375					380				
97 Asp	Leu I	Pro :	Leu	Asn	Ile	Ser	Arg	Glu	Met	Leu	Gln	Gln	Ser	Lys	Ile
98 385					390					395					400
100 Leu	Lys	Val	Ile			Asn	Ile	val	. Lys	Lys	Cys	Lev	ı Glu	Let	Phe
101		_	_	405			_		410					415	
103 Ser	GIu	Leu			Asp	Lys	Glu			. Lys	Lys	Phe			Ala
104	0	<b>T</b>	420		<b>T</b>	<b>.</b>	<b>~</b> 1	425		<b>~</b> 1	_	_	430		_
106 Phe 107	Ser	ьуs 435	ASI	ьеυ	ьys	Leu	_		HIS	GIU	Asp			Asn	Arg
107 109 Arg	λνα		cor	Cl.	T Ou	T 011	440		uic	mh~		445			. 7.55
109 AIG	450	шeu	Ser	Giu	ьeu	455		ıyı	nis	1111	460		ser	. Gry	Asp
112 Glu		Thr	Ser	T.e.11	Ser			· Val	Ser	· Aro			. Gl 11	Thr	Gln
113 465						014					1100	ب لا ت	, 010		
					470					475					
115 Lvs				Tvr	470 Ile		Glv	, Glu	Ser	475 Lvs		Gln	val	Ala	480 Asn
115 Lys 116					Ile		Gly	Glu		Lys		Gln	val		Asn
116	Ser	Ile	Tyr	485	Ile	Thr			490	Lys	Glu			495	Asn
	Ser	Ile	Tyr	485	Ile	Thr			490 Arg	Lys	Glu			495 Val	Asn
116 118 Ser 119	Ser Ala	Ile Phe	Tyr Val 500	485 Glu	Ile Arg	Thr Val	Arg	Lys 505	490 Arg	Lys Gly	Glu Phe	Glu	Val 510	495 Val	Asn
116 118 Ser	Ser Ala	Ile Phe	Tyr Val 500	485 Glu	Ile Arg	Thr Val	Arg	Lys 505 Cys	490 Arg	Lys Gly	Glu Phe	Glu	Val 510 Lys	495 Val	Asn
116 118 Ser 119 121 Met 122	Ser Ala Thr	Ile Phe Glu 515	Tyr Val 500 Pro	485 Glu Ile	Ile Arg Asp	Thr Val Glu	Arg Tyr 520	Lys 505 Cys	490 Arg Val	Gly Gln	Glu Phe Gln	Glu Leu 525	Val 510 Lys	495 Val	Asn Tyr Phe
116 118 Ser 119 121 Met 122 124 Asp 125	Ser Ala Thr Gly 530	Ile Phe Glu 515 Lys	Tyr Val 500 Pro	485 Glu Ile Leu	Ile Arg Asp Val	Thr Val Glu Ser 535	Arg Tyr 520 Val	Lys 505 Cys Thr	490 Arg Val	Gly Gln Glu	Glu Phe Gln Gly 540	Glu Leu 525 Leu	Val 510 Lys	495 Val Glu	Tyr Phe Pro
116 118 Ser 119 121 Met 122 124 Asp 125	Ser Ala Thr Gly 530	Ile Phe Glu 515 Lys	Tyr Val 500 Pro	485 Glu Ile Leu	Ile Arg Asp Val	Thr Val Glu Ser 535	Arg Tyr 520 Val	Lys 505 Cys Thr	490 Arg Val	Gly Gln Glu	Glu Phe Gln Gly 540	Glu Leu 525 Leu	Val 510 Lys	495 Val Glu	Tyr Phe Pro
116 118 Ser 119 121 Met 122 124 Asp	Ser Ala Thr Gly 530	Ile Phe Glu 515 Lys	Tyr Val 500 Pro	485 Glu Ile Leu	Ile Arg Asp Val	Thr Val Glu Ser 535 Lys	Arg Tyr 520 Val	Lys 505 Cys Thr	490 Arg Val	Gly Gln Glu	Glu Phe Gln Gly 540 Ser	Glu Leu 525 Leu	Val 510 Lys	495 Val Glu	Tyr Phe Pro
116 118 Ser 119 121 Met 122 124 Asp 125 127 Glu	Ser Ala Thr Gly 530 Asp	Ile Phe Glu 515 Lys Glu	Tyr Val 500 Pro Ser Glu	485 Glu Ile Leu Glu	Arg Asp Val Lys 550	Thr Val Glu Ser 535 Lys	Arg Tyr 520 Val	Lys 505 Cys Thr	490 Arg Val Lys	Gly Glu Glu 555	Glu Phe Gln Gly 540 Ser	Leu 525 Leu Lys	Val 510 Lys Glu	495 Val Glu Leu Lys	Tyr Phe Pro Phe 560
116 118 Ser 119 121 Met 122 124 Asp 125 127 Glu 128 545 130 Glu 131	Ser Ala Thr Gly 530 Asp Asn	Ile Phe Glu 515 Lys Glu Leu	Tyr Val 500 Pro Ser Glu Cys	485 Glu Ile Leu Glu Lys 565	Arg Asp Val Lys 550 Leu	Thr Val Glu Ser 535 Lys Met	Arg Tyr 520 Val Lys	Lys 505 Cys Thr	490 Arg Val Lys Glu Ile 570	Gly Glu Glu 555 Leu	Glu Phe Gln Gly 540 Ser	Leu 525 Leu Lys	Val 510 Lys Glu Ala	495 Val Glu Leu Lys Val	Tyr Phe Pro Phe 560 Glu
116 118 Ser 119 121 Met 122 124 Asp 125 127 Glu 128 545 130 Glu	Ser Ala Thr Gly 530 Asp Asn	Ile Phe Glu 515 Lys Glu Leu	Tyr Val 500 Pro Ser Glu Cys	485 Glu Ile Leu Glu Lys 565	Arg Asp Val Lys 550 Leu	Thr Val Glu Ser 535 Lys Met	Arg Tyr 520 Val Lys	Lys 505 Cys Thr	490 Arg Val Lys Glu Ile 570	Gly Glu Glu 555 Leu	Glu Phe Gln Gly 540 Ser	Leu 525 Leu Lys	Val 510 Lys Glu Ala	495 Val Glu Leu Lys Val	Tyr Phe Pro Phe 560 Glu
116 118 Ser 119 121 Met 122 124 Asp 125 127 Glu 128 545 130 Glu 131 133 Lys 134	Ser Ala Thr Gly 530 Asp Asn Val	Ile Phe Glu 515 Lys Glu Leu Thr	Tyr Val 500 Pro Ser Glu Cys Ile 580	485 Glu Ile Leu Glu Lys 565 Ser	Arg Asp Val Lys 550 Leu Asn	Thr Val Glu Ser 535 Lys Met Arg	Tyr 520 Val Lys Lys	Lys 505 Cys Thr Met Glu Val	490 Arg Val Lys Glu Ile 570 Ser	Gly Glu Glu 555 Leu Ser	Glu Phe Gln Gly 540 Ser Asp	Leu 525 Leu Lys Lys	Val 510 Lys Glu Ala Lys Cys 590	495 Val Glu Leu Lys Val 575 Ile	Tyr Phe Pro Phe 560 Glu Val
116 118 Ser 119 121 Met 122 124 Asp 125 127 Glu 128 545 130 Glu 131 133 Lys 134 136 Thr	Ser Ala Thr Gly 530 Asp Asn Val	Ile Phe Glu 515 Lys Glu Leu Thr	Tyr Val 500 Pro Ser Glu Cys Ile 580	485 Glu Ile Leu Glu Lys 565 Ser	Arg Asp Val Lys 550 Leu Asn	Thr Val Glu Ser 535 Lys Met Arg	Tyr 520 Val Lys Lys	Lys 505 Cys Thr Met Glu Val	490 Arg Val Lys Glu Ile 570 Ser	Gly Glu Glu 555 Leu Ser	Glu Phe Gln Gly 540 Ser Asp	Leu 525 Leu Lys Lys	Val 510 Lys Glu Ala Lys Cys 590	495 Val Glu Leu Lys Val 575 Ile	Tyr Phe Pro Phe 560 Glu Val
116 118 Ser 119 121 Met 122 124 Asp 125 127 Glu 128 545 130 Glu 131 133 Lys 134 136 Thr 137	Ser Ala Thr Gly 530 Asp Asn Val Ser	Ile Phe Glu 515 Lys Glu Leu Thr	Tyr Val 500 Pro Ser Glu Cys Ile 580 Tyr	485 Glu Ile Leu Glu Lys 565 Ser Gly	Arg Asp Val Lys 550 Leu Asn Trp	Thr Val Glu Ser 535 Lys Met Arg	Tyr 520 Val Lys Lys Leu Ala	Lys 505 Cys Thr Met Glu Val 585 Asn	490 Arg Val Lys Glu Ile 570 Ser	Gly Glu Glu S55 Leu Ser	Glu Phe Gln 540 Ser Asp Pro	Leu 525 Leu Lys Lys Cys	Val 510 Lys Glu Ala Lys Cys 590 Met	495 Val Glu Leu Lys Val 575 Ile	Tyr Phe Pro Phe 560 Glu Val Ala
116 118 Ser 119 121 Met 122 124 Asp 125 127 Glu 128 545 130 Glu 131 133 Lys 134 136 Thr	Ser Ala Thr Gly 530 Asp Asn Val Ser	Ile Phe Glu 515 Lys Glu Leu Thr	Tyr Val 500 Pro Ser Glu Cys Ile 580 Tyr	485 Glu Ile Leu Glu Lys 565 Ser Gly	Arg Asp Val Lys 550 Leu Asn Trp	Thr Val Glu Ser 535 Lys Met Arg	Tyr 520 Val Lys Lys Leu Ala 600 Thr	Lys 505 Cys Thr Met Glu Val 585 Asn	490 Arg Val Lys Glu Ile 570 Ser	Gly Glu Glu S55 Leu Ser	Glu Phe Gln 540 Ser Asp Pro	Leu 525 Leu Lys Lys Cys 11e 605 Met	Val 510 Lys Glu Ala Lys Cys 590 Met	495 Val Glu Leu Lys Val 575 Ile	Tyr Phe Pro Phe 560 Glu Val Ala

RAW SEQUENCE LISTING DATE: 07/31/2006 PATENT APPLICATION: US/10/563,726 TIME: 14:24:12

Input Set : A:\PTO.KD.txt

Output Set: N:\CRF4\07312006\J563726.raw

	2 His		Glu	Ile	Asn	Pro	Asp	His	Pro	Ile	Val	Glu	Thr	Leu	Arg	Gln
	625					630					635					640
	Lys	Ala	Glu	Ala		Lys	Asn	Asp	Lys		Val	Lys	Asp	Leu		Val
14		T 011	Dho	<b>~1</b>	645	777	T	T	0	650	<b>a</b> 1	Dh a	0	<b>T</b>	655	3
14	B Leu	Leu	Pile	660	int	Ald	neu	ьeu	665	ser	GIY	Pne	ser		GIU	Asp
	l Pro	Gln	Thr		Ser	Δen	Δra	Tla		Δνα	Mot	Tla	Lare	670	Clv	Len
15:		0111	675	1115	JCI	71511	nr 9	680	1 <b>y</b> 1	AT 9	Nec	116	685	Бец	GLY	Deu
	- 1 Gly	Ile		Glu	Asp	Glu	Val		Ala	Glu	Glu	Pro		Ala	Ala	Val
15		690					695					700				
15	7 Pro	Asp	Glu	Ile	Pro	Pro	Leu	Glu	Gly	Asp	Glu	Asp	Ala	Ser	Arg	Met
	705					710			_	_	715	_			_	720
	) Glu															
16	164 <210> SEQ ID NO: 2															
165 <211> LENGTH: 724																
	5 <21															
	7 <21					sap	piens	5								
	<40															
	Met	Pro	GIu	Glu		His	Hıs	GIY	GIu		GIu	Val	Glu	Thr		Ala
17		C1 ~	77.	~1	5	77.	~1 <del>-</del> -	T	Mak	10	T	<b>71</b> -	T1.	7	15	nh -
17	Phe	GIII	Ala	20	11e	Ala	GIII	ьeu	25	ser	ьeu	тте	тте		THE	Pne
	Tyr	Ser	λen		Glu.	Tla	Dho	Lou		Clu	Lou	Tla	cor	30	777	Cox
17		Dei	35	пуз	GIU	116	FIIC	40	Arg	Gru	пеп	116	45	ASII	АІА	ser
	Asp	Ala		Asp	Lvs	Tle	Ara		Glu	Ser	Len	Thr		Pro	Ser	Lvs
18		50			-1-		55	- 7 -	0_4			60	1100		001	Lyb
18:	2 Leu	Asp	Ser	Gly	Lys	Glu		Lys	Ile	Asp	Ile		Pro	Asn	Pro	Gln
183		_		-	-	70		-		-	75					80
18	5 Glu	Arg	Thr	Leu	Thr	Leu	Val	Asp	Thr	Gly	Ile	Gly	Met	Thr	Lys	Ala
186					85					90					95	
	Asp	Leu	Ile		Asn	Leu	Gly	Thr	Ile	Ala	Lys	Ser	Gly	Thr	Lys	Ala
189				100			_		105		_			110		
	l Phe	Met		Ala	Leu	GIn	Ala		Ala	Asp	Ile	Ser	,	Ile	Gly	Gln
192		<b>~1</b>	115	<b>01.</b>	D1	<b></b>	<b>~</b>	120	m	<b>-</b>			125	_	1	
	Phe	_	vai	GIY	Pne	ıyr		Ата	Tyr	Leu	vaı		GIU	ьуs	Val	vai
199	, Val	130	Thr	Larg	uic	λcn	135	Λcn	Glu	Gln	Tree	140	Trn	C3.,	C0~	Cor
	145	116	1111	цуъ	птэ	150	Asp	Asp	GIU	GIII	155	Ala	пр	Gru	ser	160
	) Ala	Glv	Glv	Ser	Phe		Val	Δra	Δla	Asn		Glv	Glu	Pro	Tle	
20:		1	<b>-</b> -1		165			9		170		017	O_u		175	OL y
	Arg	Gly	Thr	Lys		Ile	Leu	His	Leu		Glu	Asp	Gln	Thr		Tvr
204		-		180					185					190		-2-
206	Leu	Glu	Glu	Arg	Arg	Val	Lys	Glu	Val	Val	Lys	Lys	His	Ser	Gln	Phe
207			195	_	-		-	200			_	-	205			
209	Ile	Gly	Tyr	Pro	Ile	Thr	Leu	Tyr	Leu	Glu	Lys	Glu	Arg	Glu	Lys	Glu
210	)	210					215					220				
	Ile	Ser	Asp	Asp	Glu		Glu	Glu	Glu	Lys	Gly	Glu	Lys	Glu	Glu	Glu
	225				_	230					235					240
215	Asp	Lys	Asp	Asp	Glu	Glu	Lys	Pro	Lys	Ile	Glu	Asp	Val	Gly	Ser	Asp

RAW SEQUENCE LISTING DATE: 07/31/2006 PATENT APPLICATION: US/10/563,726 TIME: 14:24:12

Input Set : A:\PTO.KD.txt

Output Set: N:\CRF4\07312006\J563726.raw

216		
216 245 250	255	~ 7
218 Glu Glu Asp Asp Ser Gly Lys Asp Lys Lys Lys Thr L 219 260 265 2	ys Lys 70	iie
221 Lys Glu Lys Tyr Ile Asp Gln Glu Glu Leu Asn Lys Thr L		Tlo
***	ys PIO	TIE
	1 (2)	Dho
224 Trp Thr Arg Asn Pro Asp Asp Ile Thr Gln Glu Glu Tyr G 225 290 295 300	ry Gru	Pne
	-l T	77.5 ~
227 Tyr Lys Ser Leu Thr Asn Asp Trp Glu Asp His Leu Ala V 228 305 310 315	ат гуѕ	
228 305 310 315 230 Phe Ser Val Glu Gly Gln Leu Glu Phe Arg Ala Leu Leu P	ho Tla	320
231 325 330	335	PIO
233 Arg Arg Ala Pro Phe Asp Leu Phe Glu Asn Lys Lys Lys L		7 an
		ASII
236 Ile Lys Leu Tyr Val Arg Arg Val Phe Ile Met Asp Ser C	50	C1.,
	ys Asp	GIU
237 355 360 365 239 Leu Ile Pro Glu Tyr Leu Asn Phe Ile Arg Gly Val Val A	-n Com	<b>a</b> 1
240 370 375 380	sp ser	GIU
242 Asp Leu Pro Leu Asn Ile Ser Arg Glu Met Leu Gln Gln S		T1.
242 ASP Lett F10 Lett ASN T1e Set AIG G10 Met Lett G10 G10 Si	ег пув	400
245 Leu Lys Val Ile Arg Lys Asn Ile Val Lys Lys Cys Leu G	lu tou	
246 405 410	415	Pile
248 Ser Glu Leu Ala Glu Asp Lys Glu Asn Tyr Lys Lys Phe T		ת ז ת
	yr Gru 30	на
251 Phe Ser Lys Asn Leu Lys Leu Gly Ile His Glu Asp Ser T		7~~
251 File Set Bys Ash Led Bys Led Gly Tie His Glu Asp Set 1. 252 435 440 445	II ASII	Arg
254 Arg Arg Leu Ser Glu Leu Leu Arg Tyr His Thr Ser Gln S	ar Gly	Acn
255 450 455 460	ar Gry	Asp
257 Glu Met Thr Ser Leu Ser Glu Tyr Val Ser Arg Met Lys G	lu Thr	Gln
258 465 470 475	Lu IIII	480
260 Lys Ser Ile Tyr Tyr Ile Thr Gly Glu Ser Lys Glu Gln V	al Ala	
261 485 490	495	
263 Ser Ala Phe Val Glu Arg Val Arg Lys Arg Gly Phe Glu Va		Tvr
	10	-1-
266 Met Thr Glu Pro Ile Asp Glu Tyr Cys Val Gln Gln Leu Ly		Phe
267 515 520 525		
269 Asp Gly Lys Ser Leu Val Ser Val Thr Lys Glu Gly Leu G	lu Leu	Pro
270 530 535 540		
272 Glu Asp Glu Glu Glu Lys Lys Lys Met Glu Glu Ser Lys A	la Lys	Phe
273 545 550 555	•	560
275 Glu Asn Leu Cys Lys Leu Met Lys Glu Ile Leu Asp Lys Ly	s Val	Glu
276 565 570	575	
278 Lys Val Thr Ile Ser Asn Arg Leu Val Ser Ser Pro Cys Cy	s Ile	Val
	90	
281 Thr Ser Thr Tyr Gly Trp Thr Ala Asn Met Glu Arg Ile Mo	et Lys	Ala
282 595 600 . 605	-	
284 Gln Ala Leu Arg Asp Asn Ser Thr Met Gly Tyr Met Met A	la Lys	Lys
285 610 615 620	•	-
287 His Leu Glu Ile Asn Pro Asp His Pro Ile Val Glu Thr Le	eu Arg	Gln
288 625 630 635		640

RAW SEQUENCE LISTING DATE: 07/31/2006
PATENT APPLICATION: US/10/563,726 TIME: 14:24:12

Input Set : A:\PTO.KD.txt

Output Set: N:\CRF4\07312006\J563726.raw

290 Lys Ala Glu Ala Asp Lys Asn Asp Lys Ala Val Lys Asp Leu Val Val 645 293 Leu Leu Phe Glu Thr Ala Leu Leu Ser Ser Gly Phe Ser Leu Glu Asp 660 665 296 Pro Gln Thr His Ser Asn Arg Ile Tyr Arg Met Ile Lys Leu Gly Leu 675 680 299 Gly Ile Asp Glu Asp Glu Val Ala Ala Glu Glu Pro Asn Ala Ala Val 690 695 302 Pro Asp Glu Ile Pro Pro Leu Glu Gly Asp Glu Asp Ala Ser Arg Met 710 715 305 Glu Glu Val Asp 309 <210> SEQ ID NO: 3 310 <211> LENGTH: 732 311 <212> TYPE: PRT 312 <213> ORGANISM: Homo sapiens 314 <400> SEQUENCE: 3 315 Met Pro Glu Glu Thr Gln Thr Gln Asp Gln Pro Met Glu Glu Glu Glu 10 318 Val Glu Thr Phe Ala Phe Gln Ala Glu Ile Ala Gln Leu Met Ser Leu 20 25 321 Ile Ile Asn Thr Phe Tyr Ser Asn Lys Glu Ile Phe Leu Arg Glu Leu 35 40 324 Ile Ser Asn Ser Ser Asp Ala Leu Asp Lys Ile Arg Tyr Glu Ser Leu 327 Thr Asp Pro Ser Lys Leu Asp Ser Gly Lys Glu Leu His Ile Asn Leu 328 65 330 Ile Pro Asn Lys Gln Asp Arg Thr Leu Thr Ile Val Asp Thr Gly Ile 90 333 Gly Met Thr Lys Ala Asp Leu Ile Asn Asn Leu Gly Thr Ile Ala Lys 100 105 336 Ser Gly Thr Lys Ala Phe Met Glu Ala Leu Gln Ala Gly Ala Asp Ile 120 339 Ser Met Ile Gly Gln Phe Gly Val Gly Phe Tyr Ser Ala Tyr Leu Val 135 342 Ala Glu Lys Val Thr Val Ile Thr Lys His Asn Asp Asp Glu Gln Tyr 150 155 345 Ala Trp Glu Ser Ser Ala Gly Gly Ser Phe Thr Val Arg Thr Asp Thr 165 170 348 Gly Glu Pro Met Gly Arg Gly Thr Lys Val Ile Leu His Leu Lys Glu 185 351 Asp Gln Thr Glu Tyr Leu Glu Glu Arg Arg Ile Lys Glu Ile Val Lys 354 Lys His Ser Gln Phe Ile Gly Tyr Pro Ile Thr Leu Phe Val Glu Lys 215 357 Glu Arg Asp Lys Glu Val Ser Asp Asp Glu Ala Glu Glu Lys Glu Asp 230 235 360 Lys Glu Glu Glu Lys Glu Lys Glu Glu Lys Glu Ser Glu Asp Lys Pro 245 363 Glu Ile Glu Asp Val Gly Ser Asp Glu Glu Glu Lys Lys Asp Gly

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 07/31/2006
PATENT APPLICATION: US/10/563,726 TIME: 14:24:13

Input Set : A:\PTO.KD.txt

Output Set: N:\CRF4\07312006\J563726.raw

## Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220>

to <223> fields of each sequence which presents at least one n or Xaa.

```
Seq#:119; Xaa Pos. 3,4,5,6,7,8,9,10,11,12,13,220,221,222,223,224,225,226
Seq#:119; Xaa Pos. 227,228,229,230,231,232,233,234,235,236,237,238,239,240
Seq#:119; Xaa Pos. 241,242,243,244,245,246,247,248,249,250,251,252,253,254
Seq#:119; Xaa Pos. 255,256,257,258,259,260,261,262,263,264,265,266,267,268
Seq#:119; Xaa Pos. 269,270,271,272,273,274,275,528,539,540,541,542,543,544
Seq#:119; Xaa Pos. 545,546,547,548,349,550,551,552,553,554,555,556,557,558
Seq#:119; Xaa Pos. 559,560,561,691,692,693,694,695,696,697,698,699,700,701
Seq#:120; Xaa Pos. 227,228,229,230,231,232,233,234,235,236,237,238,239,240
Seq#:120; Xaa Pos. 241,242,243,244,245,246,247,248,249,250,251,252,253,254
Seq#:120; Xaa Pos. 255,256,257,258,259,260,261,262,263,264,265,266,267,268
Seq#:120; Xaa Pos. 269,270,271,272,273,274,275,276,277,278,279,280,281,282
Seq#:120; Xaa Pos. 553,554,555,556,557,558,559,560,561,562,563,564,565,566
Seq#:120; Xaa Pos. 553,554,555,556,557,558,559,560,561,562,563,564,565,566
Seq#:120; Xaa Pos. 553,554,555,556,557,558,559,560,561,562,563,564,565,566
```

## VERIFICATION SUMMARY

DATE: 07/31/2006

PATENT APPLICATION: US/10/563,726

TIME: 14:24:13

Input Set : A:\PTO.KD.txt

Output Set: N:\CRF4\07312006\J563726.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application Number

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:2450 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (73) SEQUENCE: L:2822 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (92) SEQUENCE:

L:3380 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:119 after pos.:0

M:341 Repeated in SeqNo=119

 $L:3577\ M:341\ W:$  (46) "n" or "Xaa" used, for SEQ ID#:120 after pos.:224

M:341 Repeated in SeqNo=120